

Vermont Mental Health Performance Indicator Project
Agency of Human Services, Department of Health, Division of Mental Health
Weeks Building, 103 South Main Street, Waterbury, VT 05671-1601

MEMORANDUM

TO: Vermont Mental Health Performance Indicator Project
Advisory Group and Interested Parties

FROM: John Pandiani and Sheila Pomeroy

DATE: August 27, 2004

RE: Trauma : Involuntary Inpatient Interventions
and Community Mental Health Service Utilization

This brief report is the seventh in a series¹ that examines levels of access to community mental health services for individuals with a history of trauma. This series of reports is part of Vermont's participation in a five-state SAMHSA sponsored study. This week's report focuses on CMHC utilization rates for adult Vermont residents who were secluded and/or restrained in Vermont hospitals (including the Vermont State Hospital, designated community hospitals, and the Brattleboro Retreat during fiscal years 1999 through 2003).

Seclusion, restraint, and other coercive interventions applied to psychiatric patients are being increasingly recognized as traumatic events. As noted by the National Technical Assistance Center (NTAC) of the National Association of State Mental Health Program Directors (NASMHPD), "Restraint and seclusion, which are currently accepted methods for the management of psychiatric consumers in this country, meet the DSM-IV definition of human-induced traumatic stressors. Both exert violent and absolute control while engendering utter helplessness and fear."²

Three data sets were used in this analysis. The first data set is an anonymous extract from the Vermont State Hospital Management Information System. This data set includes a record of all incidents of involuntary seclusion and restraint at the State Hospital during 1999 through 2003. The second data set is an anonymous extract from the MCIS Involuntary Database maintained by the DMH Adult MH unit. This data set includes a record of all incidents of involuntary seclusion and restraint at the state's four designated inpatient units during 1999 through 2003, and the Brattleboro Retreat State Hospital during July 2001 through December 2003. The third data set is an anonymous extract from the DMH MSR Database. This data set includes basic demographic information for all adults served by CMHCs in Vermont during FY2003.

Because these data sets do not include unique person identifiers, Probabilistic Population Estimation (PPE) was used to determine the rate at which individuals with involuntary interventions use public community mental health services. PPE is a statistical data-mining tool that measures the number of people represented in data sets that do not share unique person

identifiers³. PPE reports how many people are represented in and across data sets, but does not reveal who the people are.

As you will see, more than 60% of all individuals who were the subject of involuntary inpatient interventions during 1999 through 2003 received CMHC service during FY2003. Women who had been restrained or secluded were more likely than men to receive community based services (70% vs. 55%). There were no statistically significant differences in utilization of community mental health services among our selected age groups overall, or among men. Among women, however, individuals in the 18-34 age group were significantly more likely to use community mental health services than individuals in the 35-49 or 50-64 age groups (82% vs. 65% and 64% respectively). While access to community mental health services for VSH and community hospital patients were similar overall, there were significant gender differences related to the setting in which the involuntary interventions occurred. Women with involuntary interventions while at VSH were significantly more likely to receive CMHC services than women with involuntary interventions while at community hospitals. By contrast, men with involuntary interventions while at VSH were significantly less likely to receive CMHC services than men with involuntary interventions while at community hospitals. This difference is most evident among young adults (age 18-34).

We look forward to your interpretation of these findings and your suggestions for further analysis of these data. As always, you can reach us at pip@ddmhs.state.vt.us or 802-241-2638.

For more information about the multi-state trauma study, contact Lucille Schacht, Ph.D., Director of Statistical Analysis, NASMHPD Research Institute, at 703-739-9333 ext 125 or lucille.schacht@nri-inc.org.

¹ Performance Indicator Project: PIP Reports Regarding Trauma.

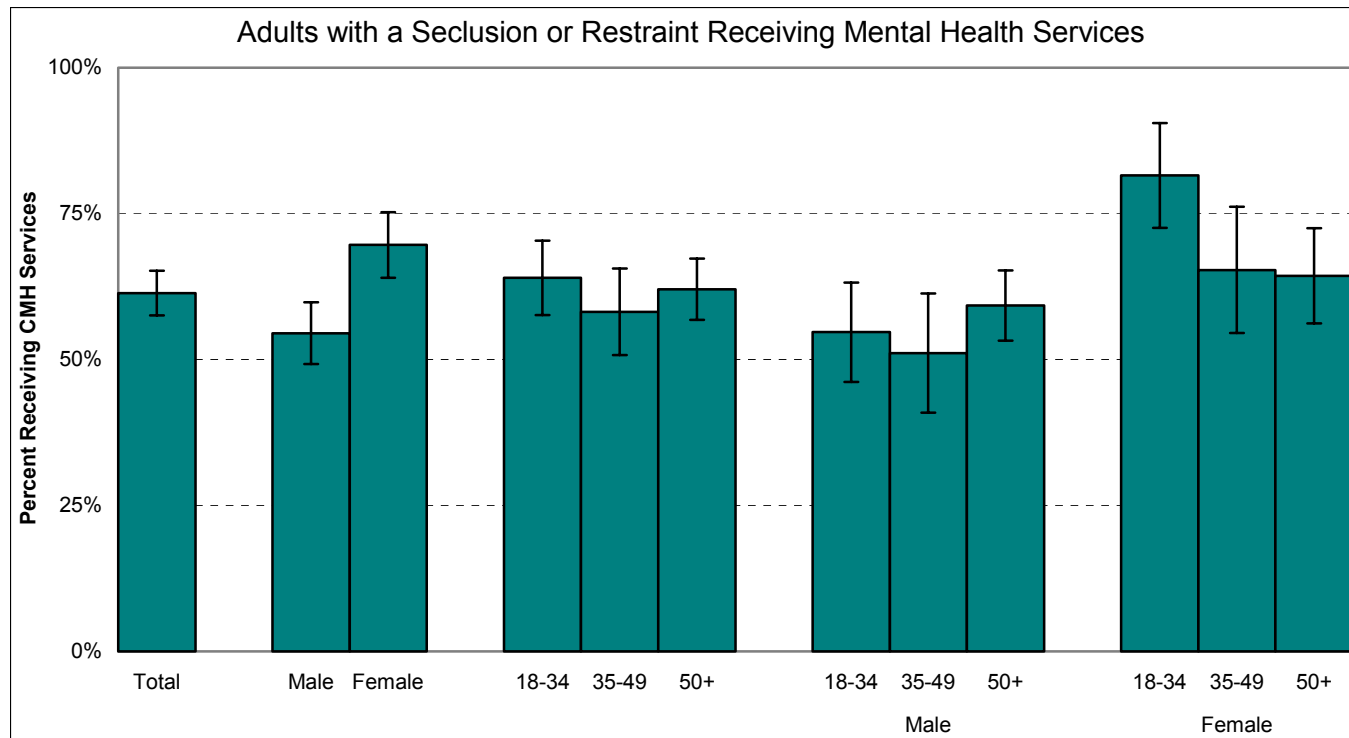
<http://www.ddmhs.state.vt.us/docs/pips/pips-by-other-indicators.html#trauma>

² Jennings, A (2004) The Damaging Consequences of Violence and Trauma: Facts, discussions Points, and Recommendations for Behavioral Health Systems. National Technical Assistance Center, national Association of State Mental Health Program Directors.

http://www.nasmhpd.org/general_files/publications/ntac_pubs/reports/Trauma%20Services%20doc%20FINAL-04.pdf

³ Banks SM and Pandiani JA (2001) Probabilistic Population Estimation of the Size and Overlap of Data Sets Based on Date of Birth. *Statistics in Medicine*, 20, 1421-1430.

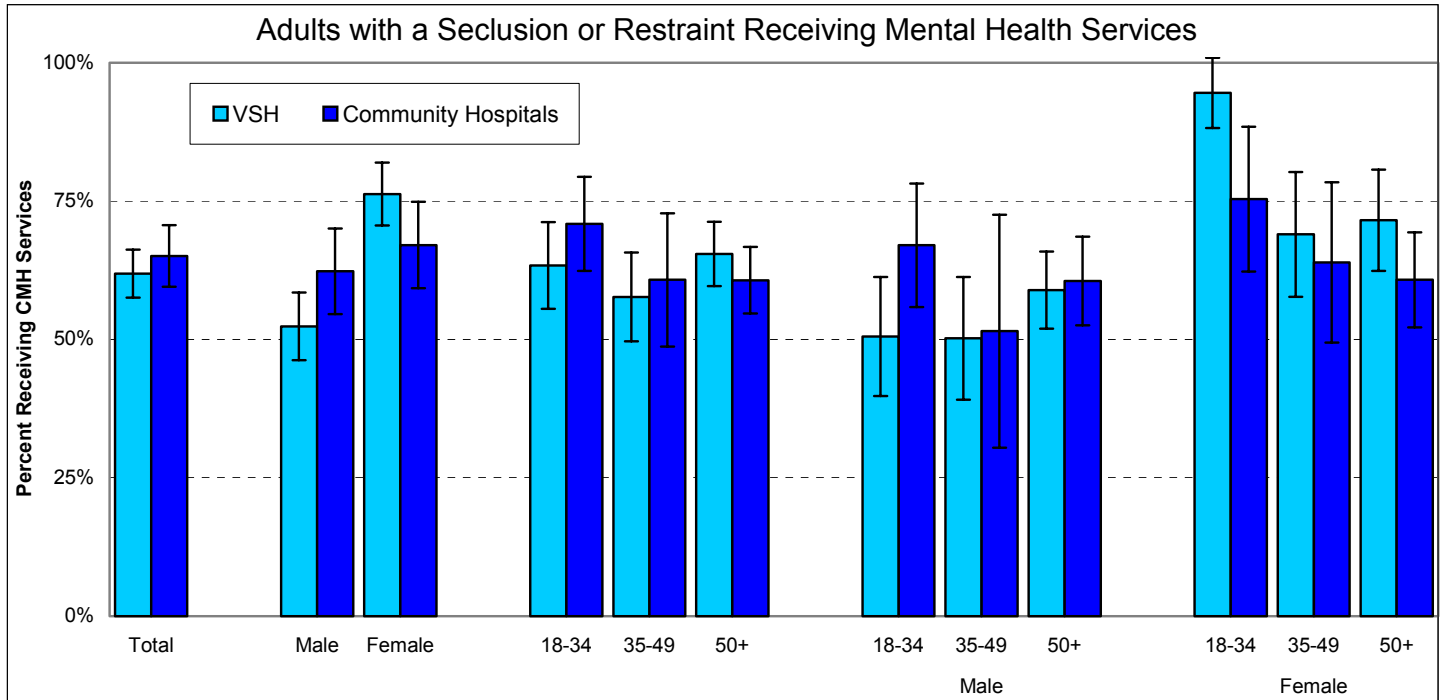
Adults with an Inpatient Seclusion or Restraint Receiving Mental Health Services after the Involuntary Intervention



	Number of Adults with Inpatient Seclusion or Restraint	Number Served by MH Programs	Adults with Inpatient Seclusion or Restraint Receiving Mental Health Services	
			Number	Percent
Total	379 ± 4	12,519 ± 98	233 ± 15	61.4% ± 3.8%
Male	207 ± 3	5,319 ± 60	113 ± 11	54.5% ± 5.3%
Female	172 ± 2	7,200 ± 77	120 ± 10	69.7% ± 5.6%
18 - 34	142 ± 2	4,637 ± 65	91 ± 9	64.0% ± 6.4%
35 - 49	136 ± 2	4,305 ± 62	79 ± 10	58.2% ± 7.4%
50+	101 ± 2	3,576 ± 37	62 ± 5	62.1% ± 5.2%
18 - 34	93 ± 2	2,055 ± 41	51 ± 8	54.7% ± 8.5%
Male 35 - 49	69 ± 2	1,883 ± 38	35 ± 7	51.1% ± 10.2%
Male 50+	45 ± 1	1,381 ± 21	27 ± 3	59.3% ± 6.0%
18 - 34	49 ± 1	2,582 ± 51	40 ± 4	81.5% ± 9.0%
Female 35 - 49	68 ± 2	2,423 ± 50	44 ± 7	65.3% ± 10.8%
Female 50+	55 ± 1	2,195 ± 30	36 ± 5	64.3% ± 8.2%

Analysis is based on data provided by the community mental health centers, the Community Hospitals, and the Vermont State Hospital. Analysis includes adults with a seclusion or restraint during fiscal year 1999 through 2003 and adult recipients of mental health services during fiscal year 2003. Because these data sets do not share unique person identifiers, Probabilistic Population Estimation was used to determine caseload size and overlap (with 95% confidence intervals).

Adults with an Inpatient Seclusion or Restraint by Hospital Type Receiving Mental Health Services after the Involuntary Intervention



	Number of Adults with Inpatient Seclusion or Restraint		Number Served by MH Programs	Adults with Inpatient Seclusion or Restraint Receiving Mental Health Services			
				VSH		Community	
	VSH	Community		Number	Percent	Number	Percent
Total	266 ± 3	157 ± 2	12,519 ± 98	164 ± 12	62% ± 4%	102 ± 9	65% ± 6%
Male	160 ± 2	65 ± 1	5,319 ± 60	84 ± 10	52% ± 6%	41 ± 5	62% ± 8%
Female	106 ± 2	92 ± 1	7,200 ± 77	81 ± 6	76% ± 6%	61 ± 7	67% ± 8%
18 - 34	90 ± 2	67 ± 1	4,637 ± 65	57 ± 7	63% ± 8%	48 ± 6	71% ± 9%
35 - 49	99 ± 2	51 ± 1	4,305 ± 62	57 ± 8	58% ± 8%	31 ± 6	61% ± 12%
50+	77 ± 1	38 ± 1	3,576 ± 37	51 ± 5	65% ± 6%	23 ± 2	61% ± 6%
18 - 34	64 ± 1	36 ± 1	2,055 ± 41	32 ± 7	51% ± 11%	24 ± 4	67% ± 11%
Male 35 - 49	59 ± 1	13 ± 0	1,883 ± 38	30 ± 7	50% ± 11%	7 ± 3	51% ± 21%
50+	37 ± 1	16 ± 0	1,381 ± 21	22 ± 3	59% ± 7%	10 ± 1	61% ± 8%
18 - 34	26 ± 1	31 ± 1	2,582 ± 51	25 ± 2	95% ± 6%	23 ± 4	75% ± 13%
Female 35 - 49	39 ± 1	38 ± 1	2,423 ± 50	27 ± 4	69% ± 11%	24 ± 6	64% ± 14%
50+	40 ± 1	22 ± 1	2,195 ± 30	29 ± 4	72% ± 9%	13 ± 2	61% ± 9%

Analysis is based on data provided by the community mental health centers, the Community Hospitals, and the Vermont State Hospital. Analysis includes adults with a seclusion or restraint during fiscal year 1999 through 2003 and adult recipients of mental health services during fiscal year 2003. Because these data sets do not share unique person identifiers, Probabilistic Population Estimation was used to determine caseload size and overlap (with 95% confidence intervals).